

# **VEHICLE ELECTRICAL POWER SYSTEM ANALYZER**

## **VEPAC-III Analyzer Summary**

### **Introductions**

VEPAC- III Vehicle Electrical Power System Analyzers are professionally designed and developed with patented technology. They are the best handheld microcomputer intelligent system for analyzing and diagnosing electrical power system of vehicles.

Operate in 12V or/and 24V, it can perform static performance test on battery alone and dynamic test of battery in vehicle. It captures and analyzes the performance and functional data of battery, engine starter, alternator, regulator and power circuitry within a minute. It detects component faults, so preventive action can be taken before component failure.

### **System Features**

1. User friendly -
  - a. No battery is required, previous data setting are kept for next usage.
  - b. Only two or three control keys can easily be handled and operated with one-hand.
  - c. Auto-ranging to operate and analyze in 12V and 24V automobile system (VEPAC-III-T).
  - d. Static performance test and dynamic test are done automatically in one setting.
  
2. Improve productivity -
  - a. Measured data display can be scrolled one at a time or by group.
  - b. Provide vital operational status of vehicle electrical power for user to take preventive actions in advance.
  - c. Measured data are stored for user review if necessary.
  - d. Information displays are fast, convenient and accurate.
  - e. No more unpredicted power component failure.

### **Battery Performance Test**

VEPAC-III provides battery static performance data automatically as follows:

1. Voltmeter (V): Real time terminal voltage in 2 decimals point with 10mV resolution, updated every 100mS.
2. State of Charge (SOC): Storage of charge condition of the battery in percentage.
3. Impedance of battery (IMP): Internal resistance of battery (battery life) in m-Ohm with 2 decimals accuracy (III-T only).
4. Reserve Cranking Capacity (RCC): Ratio of battery (battery life) remaining cranking current and rated cranking current.
5. Cranking Capacity (CCA): Cranking current output, in SAE (USA) and EN (Europe) standard, up to 2000Amps.

### **Vehicle Cranking Test**

VEPAC-III provides dynamic performance data after battery static test automatically as follows:

1. Cranking Power Index (CPI): Battery cranking ability for engine starting, the dynamic power ratio of battery output and engine cranking, an indicator of the reserve cranking power of the battery to the engine.
2. Starter Cranking Current: Peak current (Ip) and average current (Ia) during crank start, it determines the load and power circuit quality of automotive starting system.
3. Ripple voltage (Vr): Determine the working condition of alternator and battery in mV accurately (III-T only).
4. Alternator Charging Ability: Analyze and diagnose the alternator and battery charging status.

VEPAC-III analyzers are the most advanced and comprehensive handheld vehicle electrical power analyzers available in the market currently. For all vehicle mechanics, lead acid battery distributors or users who want to analyze and diagnose the electrical power system of their vehicle, this is the tool that they must equip with in order to have a peace of mind.